

## **Meeting Summary First MLPA Socioeconomic Workshop Santa Cruz, 15 November 2002**

Participants:

Social and Economic Scientists:

Monica Hunter, independent consultant  
Daniel Huppert, University of Washington  
Chris LaFranchi, independent consultant  
Carrie Pomeroy, University of California Santa Cruz  
Astrid Scholz, Ecotrust  
Gil Sylvia, Hatfield Marine Science Center, Oregon  
Cindy Thomson, National Marine Fisheries Service

MLPA Master Plan Team Members: Steve Gaines, Ralph Larson, Steve Murray, Richard Parrish, Ed Ueber, Mary Yoklavich

Dept. Fish and Game Staff: John Mello, Dave Parker, Paul Reilly, Terry Tillman, Ryan Watanabe, Fred Wendell

MLPA Associated Staff: Satie Airame, Irene Tetreault

RESOLVE Staff: Debra Nudelman

MLPA Working Group Members: Don Canestro, David Crabbe, Curtis Degler, Kaitilin Gaffney, Susan Goldbeck, Bill James, Charles Lorenz, Huff McGonigal, Juliana Rebagliata, Jesus Ruiz, Rick Thornton, Jim Webb

Public Members: Kate Bonzon, Mark Gleason, Zeke Grader, Kristen Kusic, Mary Lorenz, Sarah Lyons, John Yaulis

(This summary was prepared by Irene Tetreault and revised by Department MLPA staff)

### **Welcome, Introductions, Proposed Meeting Objectives and Agenda**

The meeting began with a welcome from Fred Wendell of the Department of Fish and Game (DFG or the Department), and all present introduced themselves. Fred Wendell and Paul Reilly filled in for Sara Peterson, but she remains the primary contact person.

### **The Role of Socio-Economic Information in the MLPA Process**

Debra Nudelman, a facilitator from RESOLVE, discussed the meeting objectives and agenda. The expertise of biologists, social and economic scientists, and

local knowledge are needed in order to guide the Regional Working Groups, the Department and the Master Plan Team toward developing the MLPA Master Plan. Key questions need to be addressed about the socioeconomic implications of proposed networks of MPAs developed during this process. It is anticipated that this is the first of two workshops.

Handouts for participants included the Workshop Agenda, a list of “Questions submitted for the workshop” taken from panelists, and the Department’s explanatory document “Use of Socio-economic information in the MLPA process.”

Debra Nudelman discussed the important questions to consider in these workshops (listed in the Workshop Agenda), and reviewed the ground rules for the workshop. The discussions were to be limited to the panelists at the table. Therefore questions and comments were not taken from the audience, but audience members could address panelists during breaks or after the meeting. One audience member taped the two formal presentations for use in informing his scuba diving students.

Fred Wendell reviewed a 3-page informational document prepared by the Department, “Use of Socio-Economic Information in the MLPA Process.” The language of the MLPA calls for taking into account relevant information including “the socio-economic and environmental impacts of various alternatives.” While the Act requires that the Department consider potential socio-economic impacts of the various alternatives, it does not require that these be minimized. The Department will need to consider both negative and positive social and economic impacts as the draft Master Plan is developed.

There has been a 2-year extension to the Department’s deadline for producing a draft Master Plan. The Department explained that this is an unfunded mandate. There are federal, Coastal Impact Assessment Program (CIAP), funds available. The Department is now working out the authority to allocate those funds. The Department continues to seek outside funding for this process.

### **Examples and Brief Overview of Social Science and Economic Research and Assessments Conducted for Other Processes**

Dr. Scholz presented “Socioeconomic analysis of MPAs – new tools based on the CINMS experience.” The information in the study was gathered from interviews with 28 fishermen, representing both commercial and recreational sectors. The study presented by Dr. Scholz included fishermen from many different fisheries, e.g. squid and rockfish. Data were collected in what is now the San Francisco Working Group region and primarily concerned specific sites which would and would not be acceptable as potential MPAs by fishing interests. This type of data is qualitative but more fine-scale than data from log books (10x 10 mile blocks). Two of the questions raised from this study are: 1) Is this a

cost-effective way to study the entire state? It costs approximately \$500 per fisherman interviewed. If a similar study was done for the six other working group regions, using the same sample size in each region, the cost would be approximately \$90,000. 2) Was the sampling representative and accurate? According to Satie Airame of the Channel Islands National Marine Sanctuary, that socioeconomic process cost \$90,000 up front plus staff time for 1 ½ years. There was also a supplemental source of information from 45 fishermen from the Santa Barbara and Ventura harbors that cost \$10,000; this included a biological component and is in GIS format. She can provide the summary of the supplement to the Master Plan Team and Regional Working Groups.

Dr. Pomeroy presented “Social science research to inform MPA processes: The Channel Islands example.” Much of the data from the squid fishery were quantified. The question was again posed: Was the sampling representative and accurate? This process generated a lot of detail, but it was cost and labor intensive, and thus may not be practical for the MLPA process. When Carrie’s time is included, Interviews cost approximately \$1000 per fishermen. Dr. Pomeroy felt that they could do an impact or efficiency analysis with this data set and could expand this method statewide in a cost-effective manner if they had a small, carefully selected group of fishermen. Although this study focused on squid fishing, additional information exists on other fisheries, in that squid fishermen fish for other resources too. In other words this is a study of squid fishermen, which encompassed squid and other fisheries. Pete Wiley from NOAA’s National Ocean Services contracted this study and had other contracts for other fisheries, the results of which were used in the process of creating proposed MPA maps for the Channel Islands process. They did not use log book information. They used qualitative information from fisherman about what their likely responses to specific closures would be.

The presentations by Drs. Scholz and Pomeroy are attached to this Meeting Summary.

### **MLPA Socio-Economic Issues: Framing the Key Questions to Consider, and Developing an MLPA Socio-Economic Framework**

The Department is looking for assistance in the form of socioeconomic expertise, both to help the seven Regional Working Groups develop alternatives for MPA networks and to evaluate those alternatives from a social and economic perspective, with the understanding that the MLPA is primarily oriented towards ecological and biological considerations. In 2001 the Department conducted 60 small constituent meetings and collected informal socioeconomic information from constituents who made suggestions for changes to the Initial Draft Concepts (IDCs) which were previously released in July 2001. The Department does not have the expertise to conduct formal socio-economic studies. There are summaries of those workshops on the Department’s website

<http://www.dfg.ca.gov/mrd/mlpa>, which socioeconomic scientists may use to aid their analyses.

Many questions were raised during the discussion by the social and economic scientists and the Master Plan Team biologists as everyone familiarized themselves with the information and tools each can bring to the table.

There were four key questions: 1) are new data required for a socioeconomic analysis; 2) what kind of study is feasible given the funding limitations for the MLPA; 3) what are the criteria that should be used for any socioeconomic study; 4) if gathering new socioeconomic information is not feasible, what would be the best use of funds dedicated to these issues? The discussions revolved around 1) the MLPA process and product, 2) sources of information and funding, and 3) possible methods of incorporating socioeconomic analyses into the process. Out of that discussion came some answers and insights, as well as unanswered questions that still need consideration. Below is a summary of information shared as well as questions for further discussion.

### *The MLPA Process and Product*

The desired product will be a draft Master Plan which meets the six goals outlined in the MLPA. There has been a 2-year extension, with the draft Master Plan to be presented to the Fish and Game Commission by January 2005.

The present framework for the process consists of seven Regional Working Groups (RWGs), each composed of 14-16 members who represent various constituencies. The seven RWGs and the Master Plan Team (MPT) are advisors to the Department. In an iterative process, the RWGs will provide one or more alternative networks of MPAs to the Department for consideration. The Department and the MPT will review each alternative and the network as a whole to ensure that they meet the MLPA requirements. The Department will forward the proposed network alternative(s) to the Department's Director as part of a draft Master Plan for approval. The final step will be the presentation of the draft Master Plan and preferred alternative to the Commission. This document will also contain the range of alternatives developed in the preceding steps. After an initial review period in the Commission forum the Department will present a revised draft Master Plan and proposed regulations for MPAs statewide. At this time the Department will also provide a draft Environmental Impact Report describing the proposed project, alternatives, and potential impacts to the environment. The Commission will then hear additional comments on the Master Plan, regulations, and draft Environmental Impact Report prior to adoption of the Master Plan and implementation of the proposed regulations. The regulations contained in the plan which are adopted by the Commission will need to be approved by the Office of Administrative Law. The Joint Committee on Fisheries and Aquaculture, a legislative committee, has oversight for the MLPA process, and may suggest changes to the Master Plan.

There will be a required fiscal and socioeconomic analysis as part of the Commission process. Standard Form 399 is required with any Final Statement of Reasons (which is the document used by the Commission to adopt regulatory changes). The form is not a complex document, but more attention has been given to it lately by the Department of Commerce. The Department of Fish and Game is responding to public comment since 2001 by weaving a more robust socioeconomic analysis into the process. Thus the Department is looking for assistance within the iterative work process between the RWGs and the MPT in developing MPA network proposals. The Department is asking the socioeconomic experts who attended the meeting to provide guidelines now for the RWGs in order to streamline future analyses of the draft alternatives.

Specifically each regional alternative will need ecological and socioeconomic analyses. The MPT developed a set of guidelines, or criteria, in order to create the IDCs. Those criteria are now on the Marine Region's MLPA website as part of the IDCs (listed under "Further Information"), and include habitat within MPAS, connectivity between MPAs, practicality, size, and spacing.

The goal of each RWG is provide recommendations for MPA networks in its region, but they cannot evaluate the state-wide network. The MPT is to provide an unbiased, science-based review of the proposed MPA networks in the draft Master Plan.

Question to the socioeconomic scientists: Can they develop a parallel set of guidelines as criteria for the RWGs? That template could be used as the framework to try to answer questions such as: What are the MLPA socioeconomic goals this region meets? Why was the preferred alternative chosen? What are some of the valuable pieces that influenced the recommendation?

Questions to the Department and MPT: How will the Department design a network based on a patchwork of seven sets of alternatives? The information may be detailed in one area, but qualitative in another. If concerns by constituents regarding impacts are raised, can users prove their claims? How will these issues and possible positive impacts be quantified? How will the Department validate user concerns so that there will be credibility in the negotiations? Will there be a peer review of the socioeconomic analyses?

Quantifying these values is the difference between social science and a public process involving political bargaining with no reality check on claims being made.

The socioeconomic scientists stated that even if the data used to answer these questions are uncertain, that is still better than no analyses. Fishing effort data are patchy, so this can bring new data to light. Information on local fishing behavior is needed in order to allow the Department to choose the less costly

alternative from among those that are ecologically equivalent. The RWG members cannot capture all of their constituents' views, but social science does so systematically. Social scientists will need to establish a baseline of data in order to evaluate the MPAs' effectiveness. That economic information could be used to evaluate possible compensation for a group that gets impacted significantly more than others. A social science analysis will build trust and serve to mitigate conflicts.

### *Resources*

The informal interviews with constituents and the public comments are helpful, but it is not known if they are representative.

The Department presented the IDCs in July 2001, and received substantial public verbal and written comment, plus one critical scientific evaluation. The regional MPT members read all the comments and worked with the Department in revising the IDCs. Because there are multiple ecological solutions within regions, these revisions were based primarily on minimizing the socioeconomic impacts claimed in the comments. The original IDCs are available to the RWGs and on the website. The Department does not have the revised IDCs as a product because they were in various stages of development and does not want to influence the RWGs in the development of their proposals. However, the point was made that the RWGs need to know what is the minimally acceptable alternative in terms of size, number and spacing of MPAs in order to not waste time in developing alternatives which would be rejected by the MPT as not meeting the goals of the MLPA.

Questions to the Department and MPT: Can the RWGs use a broader version of the revised IDCs? Can the RWGs begin with the win-win MPAs, then inform constituencies about the benefits of the MLPA, which could facilitate movement forward in a smoother fashion?

There is a lot of evidence now available regarding changes in abundance, size distributions, and reproductive output of marine organisms due to the establishment of MPAs. Adding socioeconomic information should facilitate the MLPA process. For example, a clear win-win choice for an MPA site is a historically productive site that is used infrequently now. If areas are chosen just because there is low fishing mortality at present, any negative socioeconomic impact would be low but there may not be any ecological benefit. The Merritt Island Reserve in Florida attracts fishermen who fish the reserve line, so in some cases it may be advantageous to fishermen to put MPAs near ports if they improve fishing success adjacent to them.

The socioeconomic scientists stated that they can provide information on existing analyses and sources of information, including private boat launches. The recreational data are collected differently than commercial data, and these data

are more problematic. Some of the recreational data are controversial, but CPFV logbooks and observers offer validation of other data. The Marine Recreational Fisheries Statistical Survey (MRFSS) creel surveys provide useful data on species harvested and their numbers, but expansions to total catch are suspect

From the public comments received in 2001, the Department and the MPT are aware of particular proposed MPAs that have had near unanimous support and those that have widespread opposition.

### *Possible Methods for Incorporating Socioeconomic Analyses into the MLPA Process*

In order to collect more information, perhaps funds can be allocated to augment the existing surveys (e.g. MRFSS creel) to collect more information on catch numbers and species identification.

The team can look at the CINMS study which contained a national efficiency criteria cost benefit analysis. For the MLPA perhaps the seven regions can be summed up into a state efficiency analysis which would analyze the impacts to the whole state.

The socioeconomic scientists pointed out that there are seven regional “research pods” so they can treat this as a meta-analysis, and they can form the kind of questions to ask the pods. The socioeconomic scientists can list the data presently available that the Department can use. They can also generate a list of analyses being done that the Department can tap into. The socioeconomic scientists can also research the ports and harbors themselves, which are invested in understanding the base of their economic community, including fisheries-dependent business. For example, NOAA is presently looking at Monterey harbor.

Question to the socioeconomic scientists: Instead of conducting studies, can they form an SE team, using their expertise, to inform and advise? This would parallel the role of the MPT. The financial resources available could probably fund a study of only the major fishery in each region, and the existing data still would need to go through a translation process in order to inform the MLPA. AS an alternative the funds could be used for the SE team’s travel and time at RWG and Department meetings.

Socioeconomic methods discussed included a direction of impacts (i.e. a risk assessment) exercise, and a Contingent Valuation (CV) which would provide a fair balanced picture. A CV usually requires small scale data, but this is a broad scale process, so the issue of scale would need to be addressed. Another issue to address is the time scale: short term negative costs to users and consumers that would become longer term positive impacts. Thus the Department would have to define: 1) short and long term, 2) users, both consumptive and non-

consumptive, and 3) the scale for the cost-benefit analyses: individual or community impacts. The ecology should include long-term data, not just the last few years. For non-consumptive values a CV is difficult and expensive. But it can be done inexpensively if modeled after the research by Drs. Scholz and Pomeroy. That is, interview the specific groups affected by the MLPA. To look at slipping baseline issues, the socioeconomic scientists can do a quantitative study or interview, and get similar results. Dr. Pomeroy has descriptive information on long-term shifts. The challenge will be how to integrate everything into an evaluation of different alternatives. The analyses will have to include a status quo alternative.

Stewardship is about resource use, so the process needs to target the users and elicit their cooperation. They need confidence that in the long run they will benefit. otherwise enforcement will be a large issue. The fishing communities are used to working together. The experts here can build on those social relationships

Other questions raised for discussion included: How will displacement of fishing effort due to proposed MPAs be addressed? Can the socioeconomic scientists also include positive impacts? Why can't social and economic scientists better measure or account for the intrinsic value of an MPA? How do we account for the shift of effort by commercial fishermen from species to species over time? Are there problems with just looking at a short time series (e.g. many fishermen are not targeting the same species they did 10 to 20 years ago)? Can we use the empirical information on impacts seen in other MPAs worldwide? How are things going to change when there are changes in the spatial pattern of mortality of harvested species?

### **Next Step Tasks and Meeting Summary**

A follow up workshop will be held early in 2003. While this was originally scheduled for January, conflicts with funding and Regional Working Group meetings have led to a postponement. The Department will reschedule the meeting in the near future. At a minimum all of the social and economic scientists will be invited, and at least one MPT member, as well as the Department and the facilitator. The goal will be to provide the RWGs with socioeconomic guidelines by early March.

Tasks to be completed by November 30 are: Summaries of existing socioeconomic data will be provided via email. Cindy Thomson will explain what is being done by National Marine Fisheries Service and the Pacific Fishery Management Council. The Department can summarize recreational fishery data bases which are available. The report from the MPA Social Science workshop will be provided by Carrie Pomeroy. Each socioeconomic expert will provide 1 or 2 papers from research related to MPAs for a conceptual orientation. Paul Reilly will team with Sarah Peterson for now as Department lead for the next

Workshop. The Department will create an email list for the social and economic scientists. The Department will also provide information on their staff time and resources available.

In summary, the workshops are to provide a time, data, and monetary frame for including socioeconomic analyses into the MLPA process.

Types of questions to answer: What kind of impacts are the Department interested in (i.e. equity issues, aggregate impact)? How are these impacts distributed among harbors and ports? How to analyze existing data? What form would the socioeconomic peer review take? How do fishing groups distribute themselves? How enforceable will the MPAs be? What are the compensatory mechanisms for those getting excluded? How do we measure the intrinsic value of a MPA? The Department is not equipped to provide these analyses but they cannot ignore them. The Department is looking to the social and economic experts for that information, upon which they will base policy decisions.

Finally, what are the key questions the RWGs and the Director are going to ask regarding socioeconomic impacts of proposed MPA networks?